

FIG. 1

Enzymatic fragmentation can take place to the new substrate

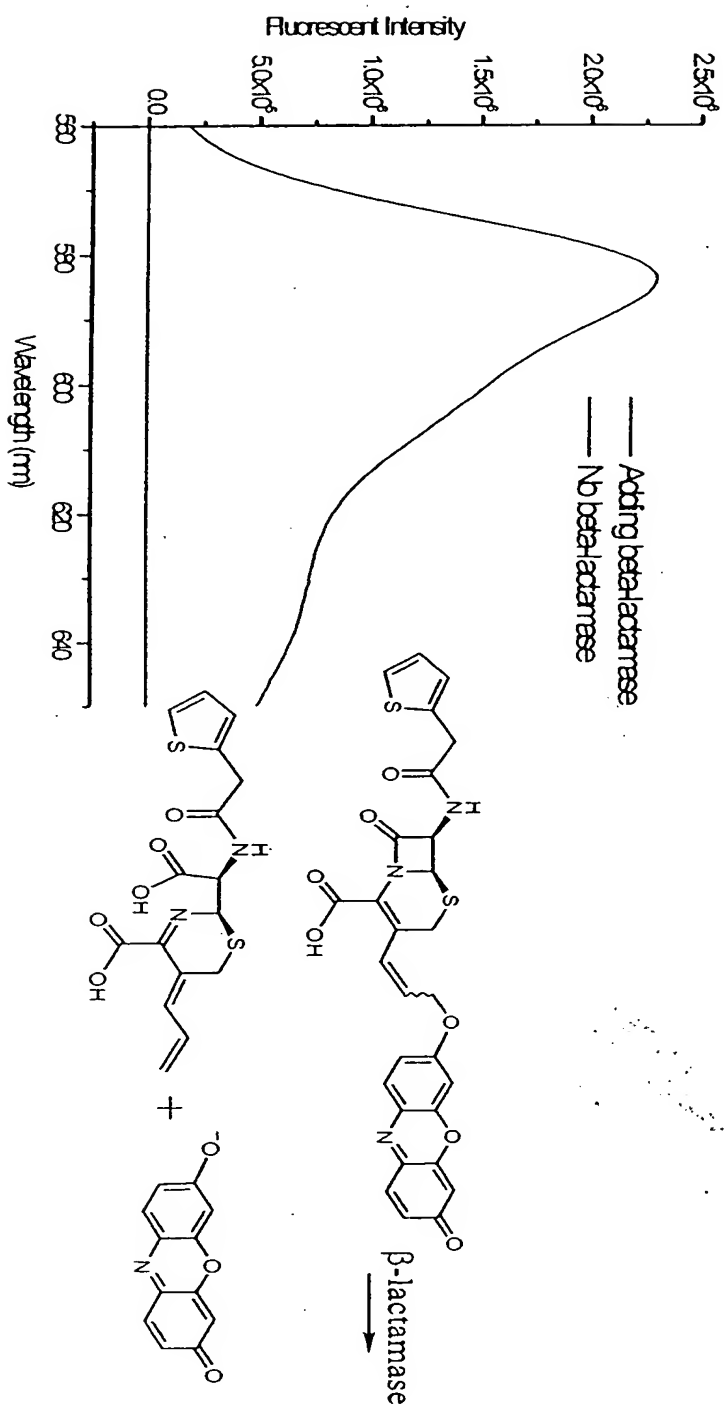


FIG 2

Synthesis of RECTO

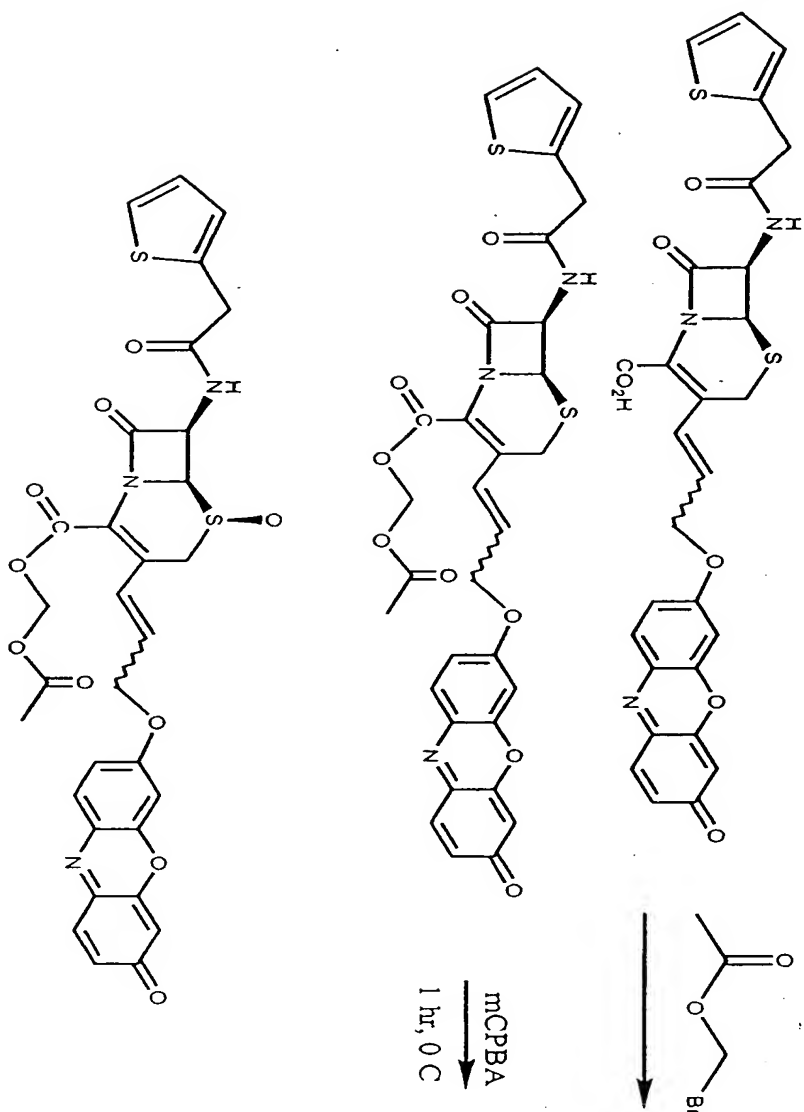


FIG. 3

Oxidation state of the sulfide affects stability

of the substrate

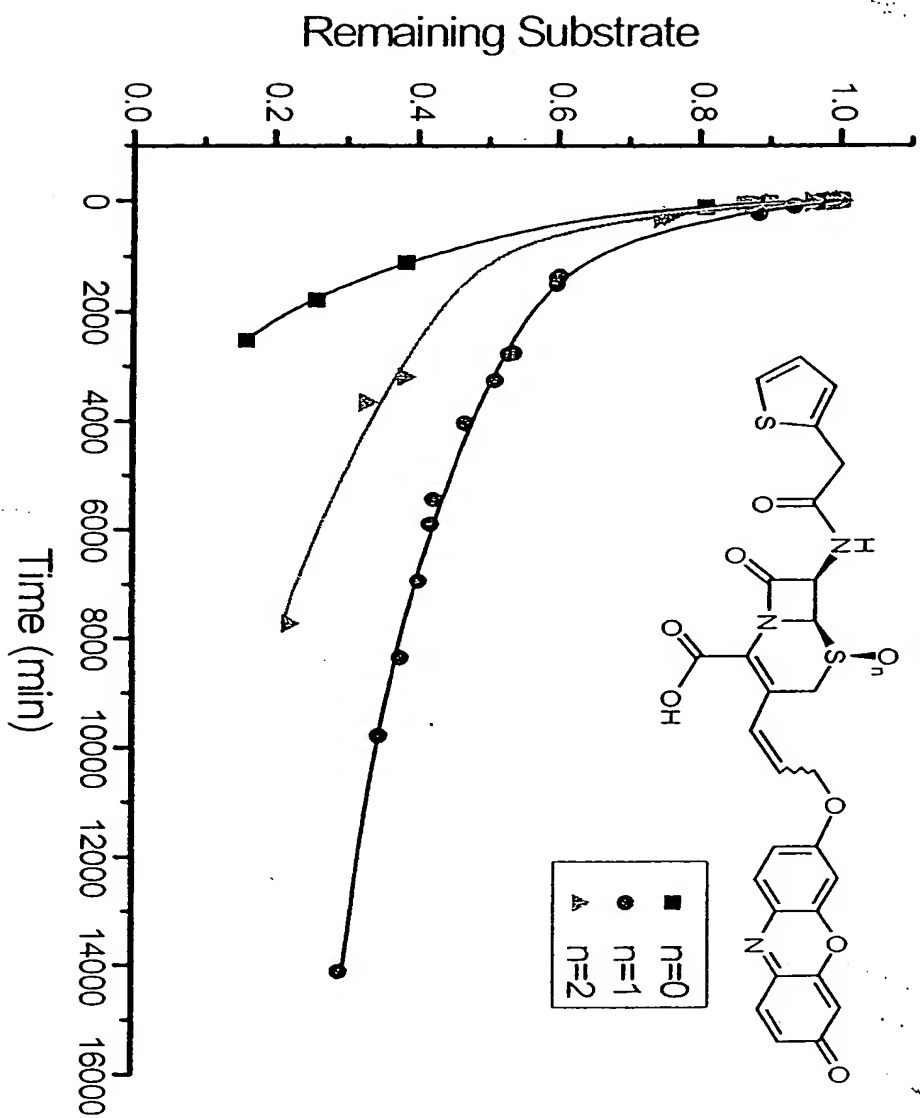


FIG 4

Sulfoxide increases substrate stability

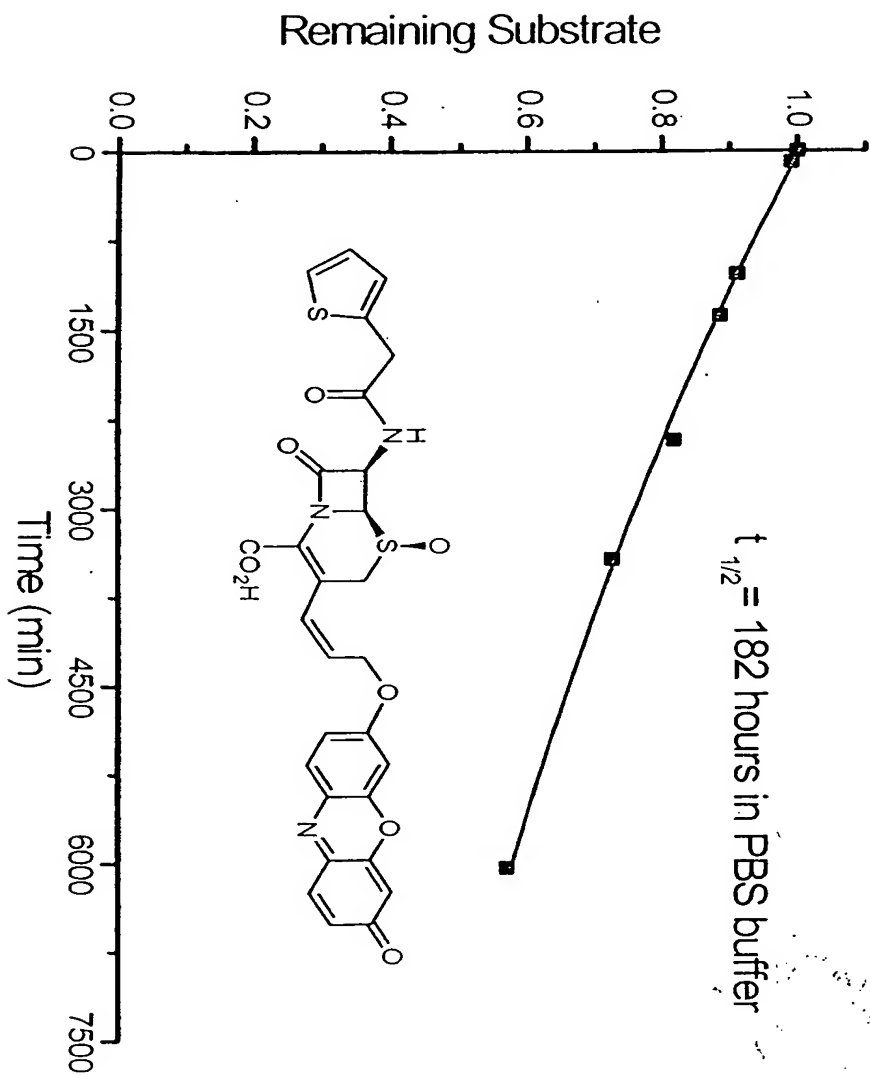
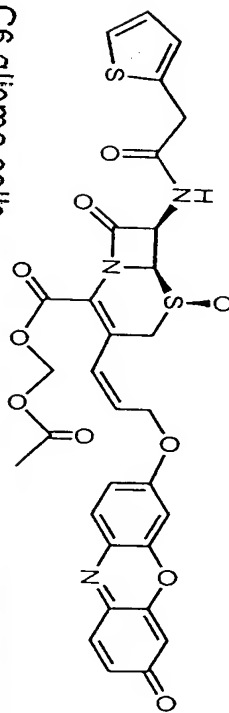


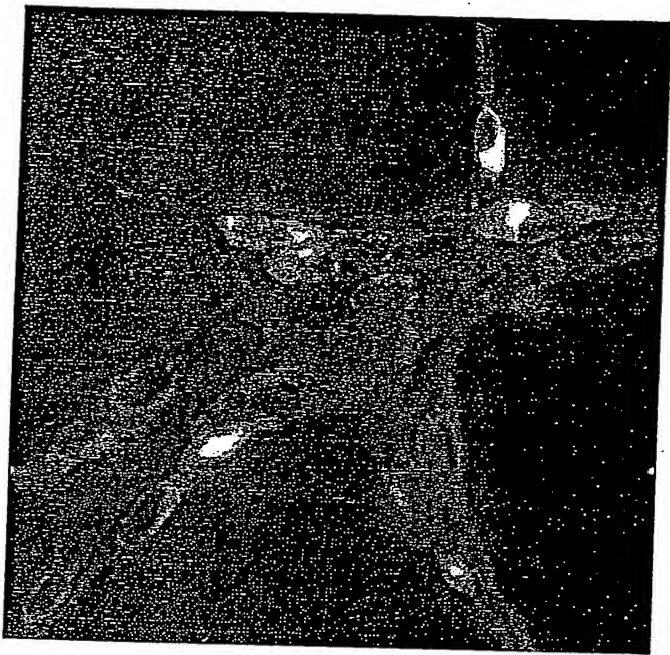
FIG. 5

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Increased resorufin deposition in β -lactamase-transfected vs. wild type cells



BLA-transfected C6 glioma cells

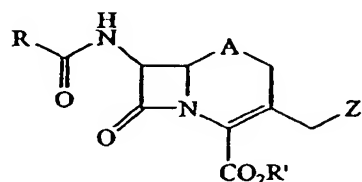


WT C6 glioma



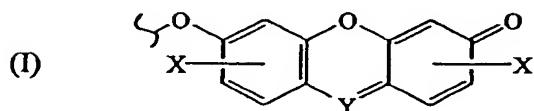
FIG. 6

cephalosporin-phenol ethers that we wish to claim:



Preferred R = benzyl, 2-thienylmethyl, or cyanomethyl; A = S or SO; R' = H or physiologically acceptable salts or ester groups.

where Z can be:



where X = H, F, Cl, Br, CO₂R';
Y = N, CH, C-CN, C-CF₃

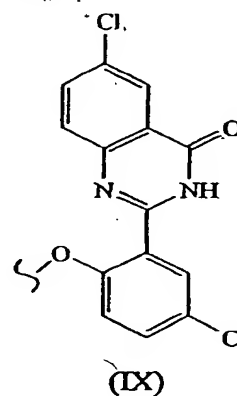
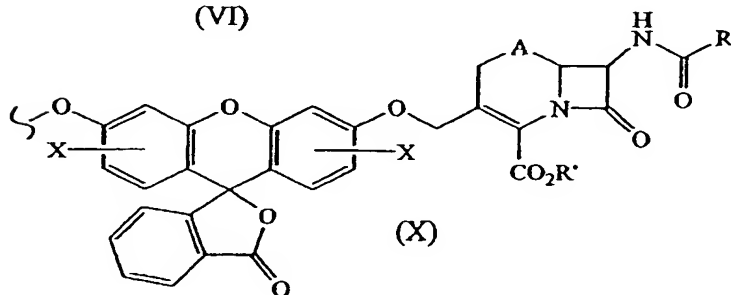
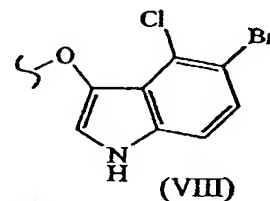
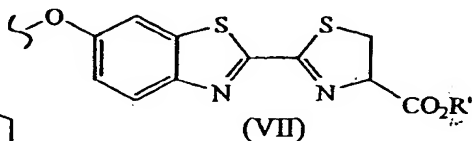
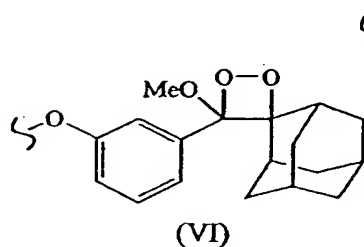
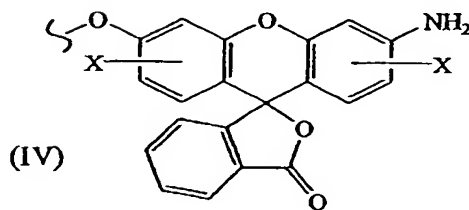
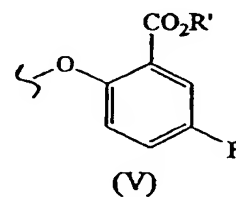
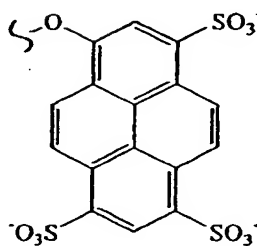
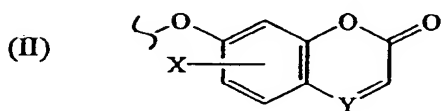


FIG 7

Resorufin-cephalosporin cleaved by β -lactamase

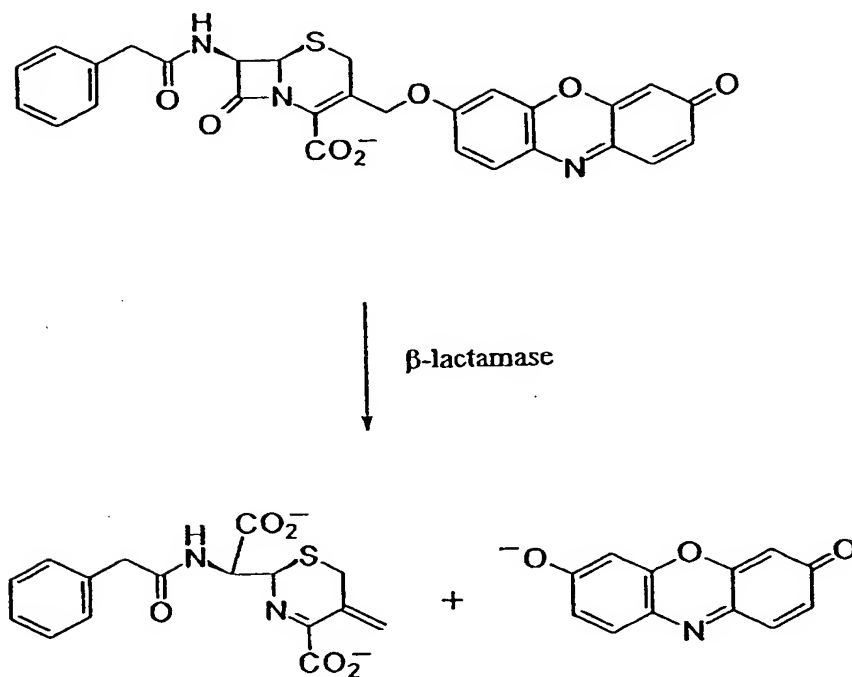


FIG 8

Absorption spectra of resorufin-cephalosporin
before and after β -lactamase treatment

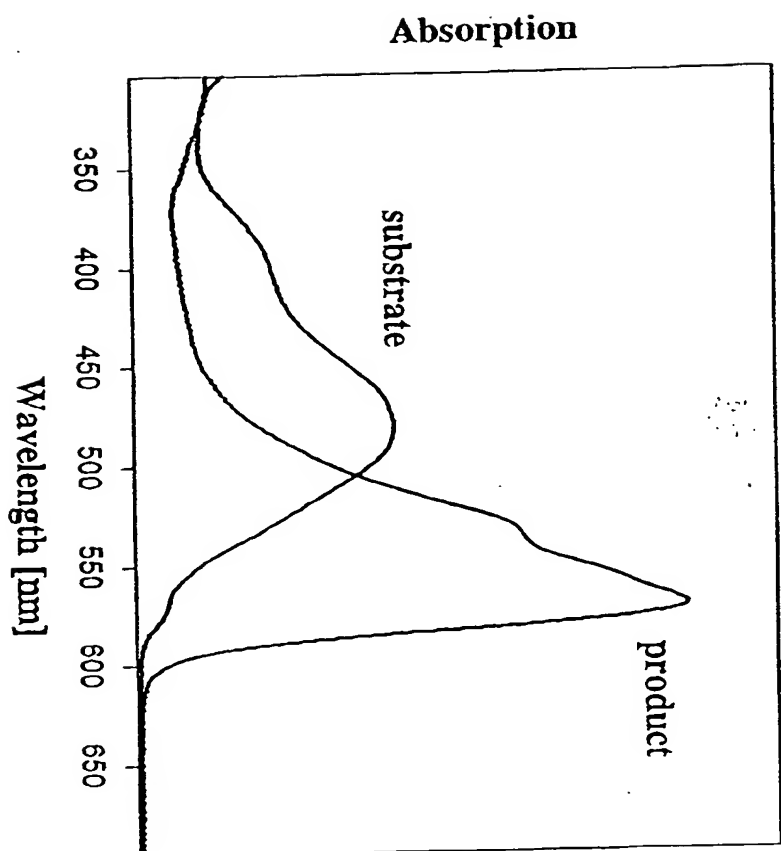


FIG. 9

Fluorescence emission of resorufin-cephalosporin
before and after β -lactamase treatment
(excitation at 570 nm)

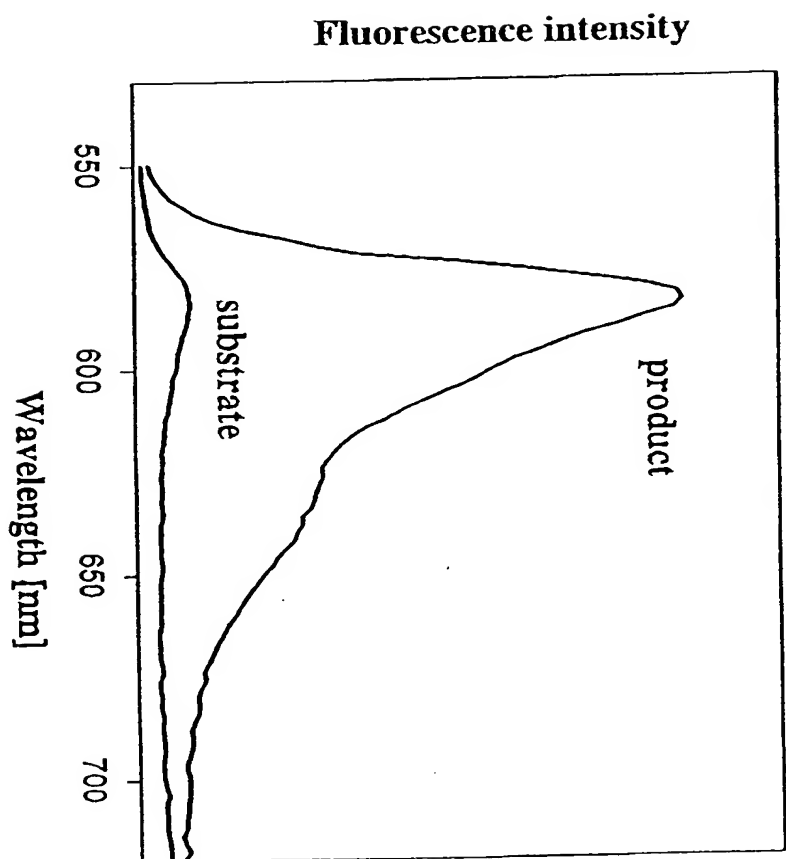


FIG. 10